

EDIC/ID-24 (revised)
Control No. 486971
27 May 1958

MEMORANDUM FOR: Economic Defense Intelligence Committee

FROM : Chairman, EDIC

SUBJECT : Revision of EDIC/ID-24: Availability of Diamonds in the USSR

1. In a memorandum dated 23 August 1957, the Commerce member of EDIC requested a revision of the subject report with special reference to:

a. A Soviet article on industrial diamond deposits in Eastern Siberia which appeared in the June 1957 issue of the Russian periodical Voprosy Ekonomiki (Questions of Economics); and

b. An August 18, 1957 radio broadcast referring to Soviet smuggling activities in industrial diamonds, as noted in an excerpt from the Daily Report of the Radio Monitoring Service (copy attached).

2. The intelligence summary prepared for the 1958 EDIC fact sheet on diamonds (Item 1070) contains the latest available information (including an evaluation of the Russian article cited) on USSR supplies of and requirements for diamonds. No additional intelligence information is available relating to the report on USSR diamond smuggling activities referred to in the Department of Commerce memorandum.

3. A copy of the intelligence summary to the 1958 EDIC fact sheet on diamonds is attached.

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Chairman

Attachments:

1. Excerpt from the Daily Report of the Radio Monitoring Service
2. Intelligence Summary to the Fact Sheet on Diamonds

Distribution:

Cat B - (4, 8-11, M/NF)
C - (1-3)
D - (All)
E - (1-3)

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RADIO BROADCAST
August 19, 1957

USSR SAID AIDING DIAMOND SMUGGLERS

Paris, AFP, Radioteletype in French to Latin America, August 18, 1957,
1314 GMT--E

CPYRGHT

(Text) Johannesburg--Captain J. du Plessis, who recently retired from the South African police force, says in an interview published by the Johannesburg SUNDAY EXPRESS today that the Soviet Union is behind a big smuggling organization.

This organization secretly managed to get out of South Africa and the Belgian Congo 400,000 carats of industrial diamonds worth more than 1 million pounds sterling. According to Captain du Plessis, who is considered an expert on diamond smuggling, all the efforts made by the South African authorities to destroy this organization have been unsuccessful. The Soviets, he added, refuse to supply themselves legally in diamonds through the Diamond Corporation of London, and they are willing to pay their South African agents three times the official market price. A Middle Eastern country plays the role of "treasurer" for the organization, which has one of its chief centers at Lourenco Marques, Mozambique.

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1958 List Review

12 March 1958

I - Item 1070

Definition

Diamonds suitable for industrial use, including splints and borts.

(Note: Interpreted to include industrial diamonds, dust and powder. Also interpreted to include rough cuttable diamonds suitable either for gem stones or industrial diamonds.)

(Criteria - c; TD - c)

Sino-Soviet Bloc Position

1. At present the Sino-Soviet Bloc is believed to be almost entirely dependent on Western sources for its supply of industrial diamonds. Their requirements for these diamonds have not been met for many years. Recent discoveries in a remote part of Siberia have led the Soviet authorities to claim that the USSR is potentially self-sufficient in diamonds, but these claims cannot be evaluated at present and may prove to be exaggerated. The quantities and qualities of the Siberian stones are not known; it is likely that several years will pass before the significance of the discovery can be assessed and before significant commercial production can start. It is possible that even when the deposits are developed the Bloc will continue to depend on Western sources for a part of its supply.
2. In the USSR a few diamonds have been produced in areas south of the Urals for many years but they represent only a small part of the estimated USSR present needs of about $2\frac{1}{2}$ million carats per year. The recently discovered diamond-bearing areas of the USSR are located in central and northeastern Siberia in the Yakut ASSR. The region is wild, not easily accessible, and its climate is very severe. Numerous Soviet sources have stated that there are both placer deposits and "pipes" in this area. While placer deposits may be capable of supplying large quantities of diamonds for some years, the future of the Soviet diamond industry will depend on the diamond content of the kimberlite pipes. Two pipes called "Mir" (Peace) and "Udachnaya" (Successful) are claimed to be as rich as those in South Africa. Stones ranging from 3 to 5 carats and some as large as 11 carats allegedly have been found. There is little information on the other pipes in the area. The contents of the pipes, of which only the upper, or near, surfaces have been investigated thus far, are reported as ranging from 4 or more carats per ton of ore in some pipes -- an average comparable to many African producers -- to only .05 and .08 carats per ton in others. An estimate of total actual reserves has not yet been published, and it is doubtful whether the Soviets can make such an estimate on the basis of the prospecting and exploitation which have taken place up to the present time.

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3. Several years are usually needed to establish commercial production in a diamond deposit. It is known that the Soviets have sent men and equipment to the site of the discovery and are discussing the construction of necessary roads, admittedly a complicated task. A town is being built close to the "Mir" pipe and a concentration plant has already been erected. Development work is apparently proceeding at a rapid rate as the Bloc is severely short of diamonds. Pravda of 3 September 1957 stated that the entire question of geological exploration for diamonds must proceed at a "forced tempo", indicating need for greater efforts. Until more data are available, however, there is no way of evaluating the validity of Soviet claims that the discovery will make them self-sufficient. Meantime plans are being laid to increase the production of machinery for making modern diamond tools, apparently an underdeveloped art, indicating optimism on the part of Soviet officials as to their future diamond supply. Diamonds are not known to be produced elsewhere in the Bloc on a significant scale.
4. According to the following statement from the Soviet periodical Voprosy Ekonomiki (Questions of Economics) for June 1957, the USSR has been short of diamonds:

"Because there is a shortage of domestic diamonds, the use of diamonds in our industry lags behind the demands of modern technological progress.... If one compares the consumption of diamonds by the US with the production of steel, which is 120,000,000 tons per year, it is possible to discover a certain principle: 1,000,000 carats of diamonds are necessary per 10,000,000 tons of steel. On the basis of this quite conditional comparison, one can set the consumption of diamonds by USSR industry, given the 1960 production of steel as 68,300,000 tons, at 6,000,000 carats." The article goes on to state that when the need of the countries in the "socialist camp" is taken into account, the total requirements will be about 7 to 9 million carats. This quantity would be equal to about one-half of the world's industrial diamond output in 1956. Considering substitutes that the USSR has developed and the Soviet Union's lesser concern with product's appearance as compared with the United States, a requirement of one carat per 20 tons of steel (rather than 1 carat per 10 tons of steel) seems more reasonable. On the basis of the 1:20 ratio of diamonds to steel, requirements would be reduced to one-half of the published Soviet estimate, or to 3 million carats for the USSR in 1960 and to 3.5 to 4.5 million for the entire Sino-Soviet Bloc in 1960.

At present, all parts of the Bloc are short of diamonds. Shortages of wire-drawing dies have been reported in East Germany. Shortages of diamonds for geological drill bits have been reported in the USSR. Soviet authorities have admitted that industry was severely short of diamonds and that procurement from the West was hampered by COCOM rules. The Soviet Union considered subsidizing Indian diamond mines in an effort to obtain additional quantities of diamonds for its industry, but there is no indication that this project materialized.

5. There has been no significant licensing of diamonds by COCOM countries. Diamond tools (see item 1075), however, have been licensed. Many reports

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over a period of several years, from various sources, have provided evidence that considerable quantities of industrial diamonds are supplied to the Sino-Soviet Bloc through illicit trade channels. The total value of this trade is difficult to assess because of the small size and weight of individual consignments and the deceptive practices employed by smugglers. Industrial diamonds involved in illicit trade originate in Sierra Leone, South Africa, the Gold Coast, Liberia, and Nigeria. In the fields of Sierra Leone diamonds occur very close to the surface and almost any man with a shovel is a potential miner. In 1957, as in previous years, thousands of unlicensed native diggers were reported to be active, despite concentrated efforts by the government to curtail their operations. The output from these illicit operations has been reported to equal the output from all legal mining in the country. This suggests that a total of from 600,000 to 900,000 carats (60 to 66 percent of which are reported to be industrials) may be finding their way into illicit channels each year. The government's official estimate of the value of stones being smuggled is \$1 million a year, whereas other sources estimate it as high as \$13 million. In view of the high prices reportedly being offered by the USSR for industrial stones -- from two to three times world market prices -- it is not unlikely that a large part of these diamonds were obtained eventually by the USSR.

6. Since diamond sales are local cash transactions, no documentation is required and the diamonds could be concealed easily in diplomatic pouches for dispatch to the Bloc. In addition to diamonds, diamond tools are known to be smuggled into the USSR; but the exact volume of this illicit traffic cannot be estimated. Additional information indicates that the Chinese Communists as well as the USSR and the Eastern European satellites have obtained considerable quantities of various types of diamond tools directly from Western European sources of supply and also through the Middle East. Bloc agents were active in European diamond markets during 1957. Yet despite the vigorous procurement effort, it is admitted that the Bloc obtains only the barest essentials and not its normal requirements of industrial diamonds.
7. Diamonds are used in the Bloc in much the same manner as the West. Diamond dies are needed for drawing fine wires for electronic and Atomic Energy uses. Diamond tipped drills are desirable for efficient geological prospecting and mining operations. Diamond wheels are needed for truing tungsten carbide tipped tools; diamond tools are needed for copying and finishing of critical parts of weapons. For certain purposes there are no efficient substitutes, e.g., for finishing objects almost as hard as diamonds. Because of the shortage of diamonds, the USSR has developed substitute abrasives but they are also in short supply (see item 1085). Introduction of ceramic tools in place of tungsten tipped tools which require constantly truing and resharpening may have cut down somewhat on requirements for diamonds (ceramic tools may be dressed by non-diamond wheels). Synthetic diamonds have been made in East Germany, but little is known of either their size or quality. 1/ In addition

1/ In the United States, the General Electric Company announced in February 1957, that a synthetic diamond-like substance called "Borazon" has been produced successfully on a laboratory scale. This substance is claimed to be superior to natural diamond in heat resistant properties. There is no information on Bloc production of an equivalent substitute.

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other synthetic stones (sapphires or rubies) can be used as substitutes for diamonds in some applications. Although East Germany is one of world's leaders in production of such synthetic stones, it still requires natural diamonds. It is likely that synthetic sapphires and rubies are also made in the USSR, but positive proof is lacking. Certain processes such as arcing and sparking for removal of surplus from ultra hard substances (e.g., tungsten alloy turbine blades) and ultrasonic finishing also can be used as substitutes for diamond tools.

8. Unless adequate indigenous sources of supply are developed, continued embargo of industrial diamonds will tend to maintain a condition of shortage in the Sino-Soviet Bloc and exercise a restraining influence on the growth and efficiency of its military and military-supporting industries.

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